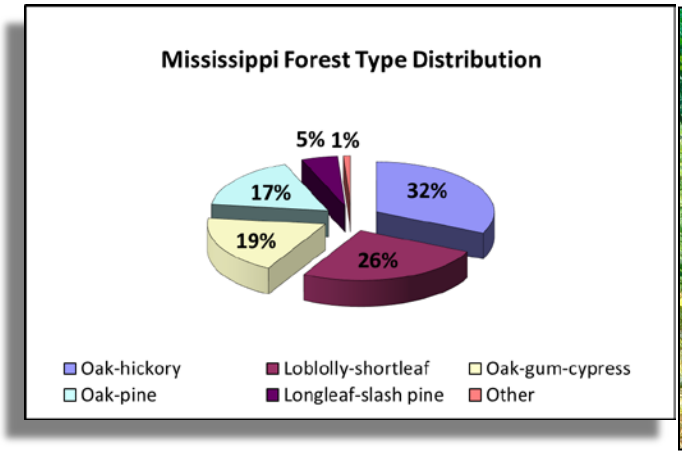
Mississippi

2017 Forest Health Highlights

The Resource

Mississippi's forests cover 19.9 million acres, more than 65% of the state's land area. Some 13.1 million acres of the states forested land is in non-industrial private ownership, while approximately 1.1 million acres are in national forests. Mississippi's forests are prized for their scenic beauty, supporting tourism and outdoor recreation and providing wildlife habitat throughout the state. Major forest types in the state include oak-hickory, loblolly and shortleaf pine, longleaf and slash pine, mixed oak-pine, and oak-gum-cypress.



Drought

Current drought conditions have eased somewhat compared to 2016, yet 97% of the land area within Mississippi 12/5/2017 was classified as "abnormally dry" or "moderate drought" conditions, compared to ~71% of the state being classified as "Extreme" drought conditions at this time last year (droughtmonitor.unl.edu). This follows 2015, which was characterized as the worst drought in nearly 100 years. Lack of rainfall continues to impact forest health in Mississippi, with numerous drought-stressed pines succumbing to *Ips* beetles, deodar weevils, and native pine shoot beetles contributing to the situation. There have been patchy reports of some drought-weakened hardwood tree mortality (oaks, hickories, ash, etc.) with associated woodborers and bark beetles contributing to the situation, but this has started to ease alongside the drought.

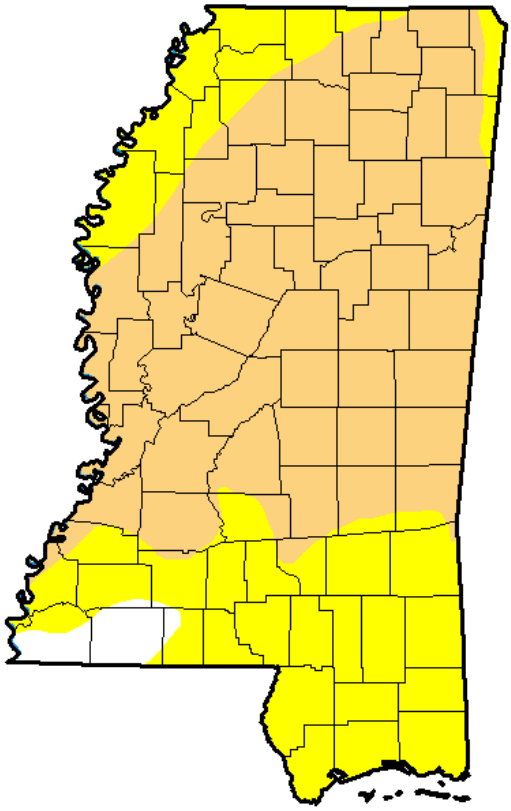
U.S. Drought Monitor

Mississippi

December 5, 2017

(Released Thursday, Dec. 7, 2017)

Valid 7 a.m. EST



Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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http://droughtmonitor.unl.edu/

Southern Pine Beetle

Southern pine beetle populations have continued to become more evenly distributed throughout the state over the last 5 years, and large outbreaks occurred during 2017. Lands within and adjacent to Bienville National Forests in particular, followed by Homochitto National Forest and the Trace Unit of Tombigbee National Forest yielded elevated SPB numbers during spring trapping surveys. Southern pine beetle infestations during 2017 have largely followed suit with spring trapping survey predictions. 331 SPB spots were detected on non-USFS lands from aerial detection flights in 2017, and more than 6,000 have been reported statewide when federal lands are included. Most of these were in very close proximity (within 1-2 miles) to NF lands. Most spots were in or adjacent to Bienville or Homochitto NF, with a few near the Trace Unit of TBNF. Annual survey flights for the State covered approximately 25 million surveyed acres. Southern pine beetle populations have increased statewide in MS during 2017, and we have experienced the largest outbreak in 20+ years.

Redbay Ambrosia Beetle

The redbay ambrosia beetle was detected for the first time in Jackson County, MS in July, 2009. This insect carries the fungus that causes Laurel Wilt Disease. Since its introduction to the Southeast, it has caused considerable mortality to redbay, swamp bay, sassafras, avocado, and other species of trees and shrubs in the Lauraceae. Current distribution records indicate the disease is present from North Carolina to Florida, westward to newer established populations in north-central Louisiana and eastern Texas. The infestation in Mississippi continues to expand, and is now present throughout the majority of Jackson Co., and portions of George and Harrison Counties in redbay, swamp bay, sassafras, as well as camphor tree. In 2015, laurel wilt was also confirmed in Stone and Perry Counties, and in 2016 was confirmed in Forrest County, MS. Collaborative research between MSSTATE, MFC, and the USDA Forest Service Region 8 FHP has led to the conclusion that the beetle was likely spread to Mississippi by human movement of infested materials from beetles along the Atlantic Coast of the U.S., rather than through a separate introduction through a local port. Cold tolerance of the vector suggests that nearly all sassafras trees in the U.S.A. are at risk from invasion and mortality due to redbay ambrosia beetle and its fungal symbiont. Additional research is investigating the impacts of LWD on Palamedes swallowtail butterflies, and other invertebrate herbivores of the Lauraceae in North America.

Southern pine beetle (SPB) Prevention Program

The MFC, in cooperation with Mississippi State University (Mississippi State University Extension Service, Forestry and Wildlife Research Center, and Mississippi Agricultural and Forestry Experiment Station), and the USDA Forest Service Forest Health Protection Southern Region continues to administer a comprehensive SPB Prevention/Education Program to teach landowners about the benefits of thinning for the reduction of SPB hazard. In addition to the educational aspects of this program, there is an associated statewide cost-share program to assist landowners in getting the pre-commercial and 1st commercial thinning accomplished.

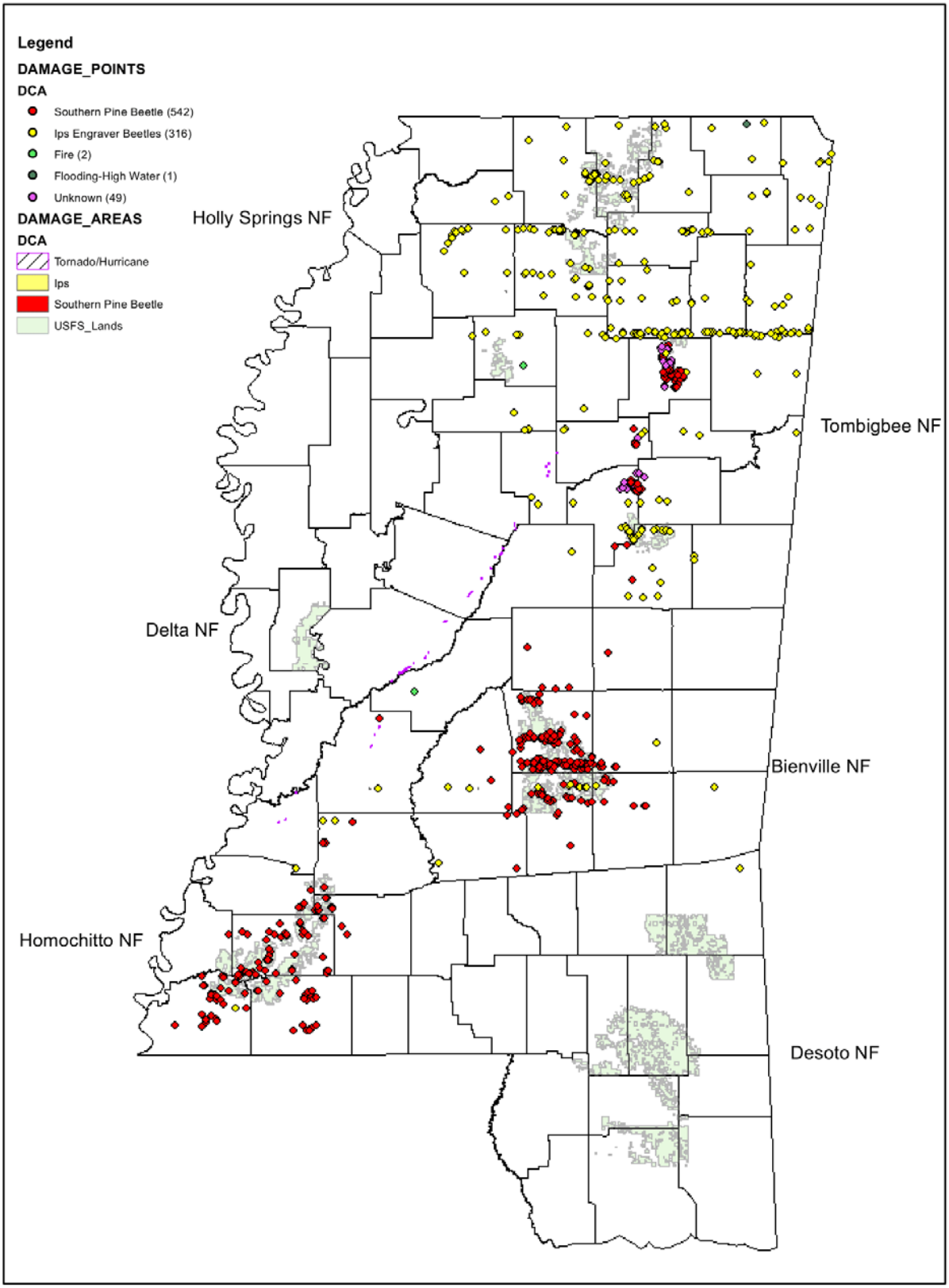
Presently under the active grant years of 2013 – 2016, we have 8359 acres signed up for thinning, with a total of $605,930 obligated in funds that will go to landowners after they have completed the thinning projects on their properties.

Kudzu

Kudzu is a non-native, invasive weed that aggressively spreads and outcompetes desirable plants, including trees forests in the Southeast. A grant was awarded to the North Central MS RC&D to carry out this project in North MS. This project was funded in the amount of $42,500 for a one year project in 2015 where the cost share covers 75% of the cost of treatment. The kudzu control took place in the following counties on private lands: Benton, Carroll, Desoto, Grenada, Lafayette, Marshall, Panola, Pontotoc, Tallahatchie, Tate, Tippah, Tishomingo, Union and Yalobusha. The MFC is currently seeking new opportunities to provide cost share assistance to landowners throughout the state.

Cogongrass is a non-native, invasive plant that has been spreading aggressively in Mississippi in recent years. It takes over native grasses and vegetation and is a fire hazard under pine plantations. The severity and extent of infestations have increased considerably in the disturbed forests following hurricane Katrina in 2005. The MS Forestry Commission has been funded for several years by the USFS under their redesign grants to continue the fight against this invasive weed. To date (since 2010), we have treated 4,775.31 acres for 2,241 landowners, with $1,631,022.24 going directly for treatments for landowners. Under this program, there **is no cost** to landowners for this service.

2017 Forest Health Occurence Map



This map shows all data collected by the MFC during 2017 from aerial detection flights.
Map Created by Joshua Skidmore on 12/1/2017

Forest Health Assistance in Mississippi

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